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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* ANDREW E. FANO  
and SCOTT KURTH

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Appeal No. 2007-0868  
Application No. 09/520,943  
Technology Center 3600

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Decided: February 28, 2008

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Before HUBERT C. LORIN, JENNIFER D. BAHR, and DAVID B. WALKER,  
*Administrative Patent Judges.*

LORIN, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Andrew Fano, et al. (Appellants) seek our review under 35 U.S.C. § 134 of the final rejection of claims 21-39, 41-45, 47-68, 70-74, 76-97, 99-103, and 105-107. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

## SUMMARY OF DECISION

We AFFIRM.

## THE INVENTION

The Appellants' invention "relates to financial planning and more particularly to making financial decisions by balancing goals in a network-based financial manager." (Specification 1:8-9.) In one aspect of the invention,

[t]he present invention enables users to make financial decisions by negotiating tradeoffs between personal financial goals. The user interface represents different goals in one person's life, including their home, car, monthly allowance and savings, planned furniture purchase, planned appliance purchase (e.g. TV), vacation, children's education, and retirement home. The present invention allows one to select any of these goals and make adjustments to preferences for the selected goal. These preferences include the priority, expected quality, and expected schedule for attaining the goal. After adjusting the preferences for a selected goal the present invention reallocates funds between goals according to preferences. One can examine the resulting tradeoffs by viewing the changes, which are represented graphically on the screen. The intent is to illustrate a shift in the "conversation" between a financial institution and a customer. Instead of focusing on individual transactions, the present invention enables a lifestyle.

(Specification 29:9-21.) Figs. 6-10 illustrate the claimed invention. It involves a user interface on, for example, a computer display (see Fig. 2) displaying images of various financial goals from which a user selects a financial goal. (Specification 29:23-26, referring to Fig. 6.) "[A] user is permitted to adjust preferences related

to the financial goal represented by the selected image.” (Specification 29:26-28.) “For example, time indicia 702 [referring to Fig. 7] is displayed for permitting the user to adjust a time expectation for the amount of time expected for achieving the financial goal represented by the selected image. As yet another example, priority indicia 704 is displayed for permitting the user to adjust a level of priority for achieving the financial goal represented by the selected image.” (Specification 30:5-9.) The priority indicia may be shown on the display as a slidable bar. (Specification 31:7.) “As illustrated in Figure 7, priority indicia 708 may be a slidable or scalable bar so that moving the level of the bar towards the quality side of the bar increases the favoring of quality while decreasing the favoring of time while moving the level of the bar towards the time side of the bar increases the favoring of time while decreasing the favoring of quality.” (Specification 31:6-11.) “Users may thus adjust their expectations for time and quality, how important a goal is (the priority), and the extent to which they prefer to trade off time versus quality for a given goal.” (Specification 31:14-16.) “An interaction with the present invention is a continuous process of selecting a goal, adjusting preferences for that goal, and examining the resulting tradeoffs. The user continues this process until they arrive at a set of choices with which they are most comfortable.” (Specification 32:9-12.)

Claims 21, 50, and 79 reproduced below, are representative of the subject matter on appeal.

21. A method for enabling users to make decisions by modeling tradeoffs between a plurality of personal goals, comprising:
- (a) receiving information from a user including information related to a cash flow of the user;
  - (b) graphically presenting to the user a plurality of goals based upon the information provided from the user, wherein the plurality of goals are related to the cash flow of the user;
  - (c) allowing the user to select at least one goal of the plurality of goals;
  - (d) presenting to the user a plurality of the user preferences for each selected goal;
  - (e) allowing the user to make an adjustment to user preferences related to one of the selected goals;
  - (f) determining an impact of the adjustment on attaining the remaining goals; and
  - (g) graphically presenting to the user the impact of the adjustment on attaining the goals by again presenting the plurality of goals as adjusted.

50. A computer system for enabling users to make decisions by modeling tradeoffs between personal goals, comprising:
- (a) means for receiving information from a user including information related to a cash flow of the user;
  - (b) means for graphically presenting to the user a plurality of goals based upon the information provided from the user wherein the plurality of goals are related to the cash flow of the user;

(c) means for allowing the user to select at least one goal of the plurality of goals;

(d) means for presenting to the user a plurality of the user preferences for each selected goal;

(e) means for allowing the user to make an adjustment to user preferences related to one of the selected goals;

(f) means for determining an impact of the adjustment on attaining the remaining goals; and

(g) means for graphically presenting to the user the impact of the adjustment on attaining the goals by again presenting the plurality of goals as adjusted.

79. A computer program embodied on a computer readable medium for enabling users to make decisions by modeling tradeoffs between personal goals, comprising:

(a) a module for receiving information from a user including information related to a cash flow of the user;

(b) a module for graphically presenting to the user a plurality of goals based upon the information provided from the user wherein the plurality of goals are related to the cash flow of the user;

(c) a module for allowing the user to select at least one goal of the plurality of goals;

(d) a module for presenting to the user a plurality of the user preferences for each selected goal;

(e) a module for allowing the user to make an adjustment to user preferences related to one of the selected goals;

(f) a module for determining an impact of the adjustment on attaining the remaining goals; and

(g) a module for graphically presenting to the user the impact of the adjustment on attaining the goals by again presenting the plurality of goals as adjusted.

### THE REJECTIONS

The Examiner relies upon the following as evidence of unpatentability:

Jones	US 6,021,397	Feb. 1, 2000
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The following rejections are before us for review<sup>1</sup>:

1. Claims 21-27, 50-56, and 79-85 are rejected under 35 U.S.C. 102(e) as being anticipated by Jones.
2. Claims 28-39, 41-45, 47-49, 57-68, 70-74, 76-78, 86-97, 99-103, and 105-107 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones.

### THE ISSUES

The first issue before us is whether the Appellants have shown that the Examiner erred in rejecting claims 21-27, 50-56, and 79-85 as being anticipated by Jones. This issue turns on whether Jones shows (1) presenting “a plurality of goals which may be modeled together and [] graphically present[ing] the potential attainment for all goals” (App. Br. 10) and (2) “graphically presenting to the user the impact of the adjustment on attaining the goals by again presenting the plurality

<sup>1</sup> In reviewing these rejections, we have considered Appellants’ Appeal Brief (“App. Br.,” filed Aug. 12, 2005), the Examiner’s Answer (“Answer,” mailed Sep. 26, 2006), and the Reply Brief (“Reply Br.,” filed Oct. 31, 2006).

of goals as adjusted” (step and element (g) of the claims). Another issue, affecting claims 24, 26, 27, 53, 55, 56, 82, 84, and 85, is whether Jones shows the “ability to select preferences, amounting to more than cost, that balance the attainment of a selected plurality of goals against each other” (App. Br. 11).

The second issue before us is whether the Appellants have shown that the Examiner erred in rejecting claims 28-39, 41-45, 47-49, 57-68, 70-74, 76-78, 86-97, 99-103, and 105-107 as unpatentable over Jones. As to claims 33, 62, and 91, the issue turns on whether Jones shows using the user profile as market intelligence. (App. Br. 15).

#### FINDINGS OF FACT

We find that the following enumerated findings are supported by at least a preponderance of the evidence. *Ethicon, Inc. v. Quigg*, 849 F.2d 1422, 1427 (Fed. Cir. 1988) (explaining the general evidentiary standard for proceedings before the Office).

##### *The scope and content of the prior art*

1. Jones is directed to a financial advisory system to “return scenarios for optimized portfolio allocations” and to facilitate financial product selection. Col. 2, ll. 48-51.
2. Col. 4, ll. 7-33 of Jones reads as follows:

After generating future scenarios for the factor model, financial products available to an investor may be mapped onto the factor model. To assure that a portfolio recommended by the system is attainable, it is preferable



to generate investment scenarios that include only those financial products that are available to the investor. The available financial products may include, for example, a specific set of mutual funds offered by an employer sponsored 401(k) program. In any event, this mapping of financial products onto the factor model is accomplished by decomposing the returns of individual financial products into exposures to the asset classes employed by the factor model. In this manner, the system learns how each of the financial products available to the user behave relative to the asset classes employed by the factor model. In so doing, the system implicitly determines the constraints on feasible exposures to different asset classes faced by an investor given a selected subset of financial products. Given this relationship between the user's available financial products and the factor model, the system may generate feasible forward-looking investment scenarios, the system may further advise the user regarding actions that may be taken (e.g., save more money, retire later, take on additional investment risk, seek opportunities to expand the investment set) to achieve certain financial goals, such as particular retirement standard of living, accumulating a down payment for the purchase of a house, or saving enough money to send a child to college.

3. Col. 6, ll. 3-34 of Jones reads as follows:

Based on the user's current holdings the system may forecast a retirement income and graphically depict the current portfolio's projected growth and range of possible values over time.

The system may also provide the user with statistics regarding the likelihood that they will be able to

retire when they would like, given the projected returns on the user's current portfolio based upon the data input by the user, including the user's current savings rate, retirement age, goal, and investment holdings.

Based on models and calculations that will be discussed in more detail below, the financial advisory system 100 [Fig. 1] may provide an initial diagnosis based upon the user's risk preference, savings rate, and desired risk-return tradeoffs. This diagnosis can result in a series of suggested actions including: (1) rebalance the portfolio, (2) increase savings, (3) retire later, or (4) adjust investment risk. An iterative process may then begin in which the user may adjust his/her investment risk, savings rate, and/or retirement age and have the financial advisory system 100 evaluate the projected performance of an optimized portfolio give the financial products available to the user based on the currently selected risk tolerance, investment horizon and savings rate decisions. This process of the financial advisory system 100 providing advice and/or feedback and the user adjusting risk, savings, and retirement age parameters may continue until the user has achieved a desired portfolio forecast and performance distribution. At this time, the user may choose to implement the optimal portfolio. The parameters and portfolio allocation may then be saved by the financial advisory system 100 for future user sessions.

4. Col. 7, ll. 39-43 of Jones reads as follows:

For example, graphical depictions of expected portfolio performance, asset allocation for an optimal portfolio, charts indicating retirement age probabilities, and other data types may be presented to the user on the display device 221 [Fig. 2].

*The level of skill in the art*

5. Neither the Examiner nor Appellants have addressed the level of ordinary skill in the pertinent arts of computer modeling. We will therefore consider the cited prior art as representative of the level of ordinary skill in the art. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (“[T]he absence of specific findings on the level of skill in the art does not give rise to reversible error ‘where the prior art itself reflects an appropriate level and a need for testimony is not shown’”) (Quoting *Litton Indus. Prods., Inc. v. Solid State Sys. Corp.*, 755 F.2d 158, 163 (Fed. Cir. 1985)).

*Secondary considerations*

6. There is no evidence on record of secondary considerations of non-obviousness for our consideration.

PRINCIPLES OF LAW

*Anticipation*

“A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros., Inc. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631 (Fed. Cir. 1987).

*Obviousness*

“Section 103 forbids issuance of a patent when ‘the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.’” *KSR Int'l Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1734 (2007). The question of obviousness is resolved on the basis of underlying factual determinations including (1) the scope and content of the prior art, (2) any differences between the claimed subject matter and the prior art, and (3) the level of skill in the art. *Graham v. John Deere Co.*, 383 U.S. 1, 17-18 (1966). *See also KSR*, 127 S.Ct. at 1734 (“While the sequence of these questions might be reordered in any particular case, the [*Graham*] factors continue to define the inquiry that controls.”) The Court in *Graham* further noted that evidence of secondary considerations “might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.” 383 U.S. at 18.

ANALYSIS

*The rejection of claims 21-27, 50-56, and 79-85 under 35 U.S.C. 102(e) over Jones.*

The Appellants argue claims 21-27, 50-56, and 79-85 as a group (App. Br. 8-12). We select claim 21<sup>2</sup> as the representative claim for this group, and the remaining claims 22-27, 50-56, and 79-85 stand or fall with claim 21. 37 C.F.R.

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<sup>2</sup> See *supra*.

§ 41.37(c)(1)(vii) (2007). The Appellants' additional arguments (App. Br. 12-13) as to claims 24, 26, 27, 52, 55, 56, 82, 84, and 85 will be addressed separately *infra*.

The Appellants argued that “Jones fails to contemplate the impact of a plurality of goals on the same level across descriptive criteria.” App. Br. 11. According to the Appellants, [t]he present invention is patentable because Jones fails to present a plurality of goals which may be modeled together and to graphically present the potential attainment for all goals. Jones contemplates the modeling of only a single goal, clearly financial in nature, and provides options that may be selected to project attainment of that one financial goal.” App. Br. 10. The Appellants argue that “[q]uite distinguishable from Jones, the present invention contemplates not only the modeling of a plurality of goals simultaneously, but also contemplates the consideration of goals beyond those that are financial, amounting to a more holistic approach to planning.” App. Br. 10. See also Reply Br. 4-5.

There are two aspects to this argument. The first involves the modeling of a plurality of goals. That aspect is clearly indicated in Jones. Jones' plan monitoring module determines whether, as the result of a change in market value for a user's assets, for example, a portfolio “may no longer be within a predetermined probability tolerance of achieving one *or more financial goals*.” Col. 19, ll. 16-23. (Emphasis added.) The other aspect to the argument involves the modeling of a plurality of goals which may not all be financial in character. That aspect of the argument is not reflected in the claims. Claim 21, nowhere

limits the process to modeling a plurality of goals which are not all financial in character. “Many of appellant’s arguments fail from the outset because, . . . they are not based on limitations appearing in the claims . . . .” *In re Self*, 671 F.2d 1344, 1348 (CCPA 1982). The same can be said of the argument that the “present invention provides simultaneous modeling of both goals such that the optimized projected attainment of both is achieved *at the same time*.” (Reply Br. 3-4) (Emphasis original.) There is nothing in the claim about *simultaneous* modeling of a plurality of goals, let alone the seeking at the same time of *optimized projected attainment* of any goal.

The Appellants also argued that “Jones fails to teach the graphical presentation of goals after adjustment [i.e., step (g) of claim 21].” App. Br. 11. The Examiner relied, in part, on col. 7, ll. 39-43, as describing a device which displays adjusted goals. Answer 22. We find that that passage (FF 4), which describes displaying adjusted goals, coupled with the fact that Jones indicates that a plurality of goals can be modeled (*see supra*), supports the Examiner’s position.

*Claims 24, 26, 27, 52, 55, 56, 82, 84, and 85*

The Examiner argued that col. 6, ll. 3-35 and col. 4, ll. 5-35 of Jones teaches the subject matter of these claims.

Appellants responded by arguing that Jones fails to disclose permitting the adjustment of “priority” (claim 24<sup>3</sup>), “quality” (claim 26), and “favoritism” (claim 27) to affect the projected attainment of a goal, submitting that the “Jones disclosure, on which the Examiner relies, arguably and solely contemplates and discloses the adjustment of the *time* by which a goal would be attained [referring to Jones, col. 6, ll. 3-35 [sic, 3-34]].” App. Br. 13. (Emphasis added.) Regarding the passage at col. 4, ll. 7-33, on which the Examiner also relied, the Appellants argued that “the language at that citation does not address the adjustment of preferences or other criteria.” App. Br. 13, footnote 5 [referring to Jones, col. 4, ll. 5-35 [sic, 7-33]].

We have reviewed the passages in Jones the Examiner relied upon to reject these claims. FF 2 and 3. Jones states: “This process of the financial advisory system 100 providing advice and/or feedback and the user adjusting risk, savings, and retirement age parameters may continue until the user has achieved a desired portfolio forecast and performance distribution. Col. 6, ll. 27-31. This statement indicates that Jones contemplates the adjustment of preferences (e.g., savings) in the attainment of goals that is *not* limited to the “adjustment of the *time* by which a

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<sup>3</sup> 24. A method as recited in claim 21 wherein the step of allowing the user to make an adjustment further comprises:

- (a) presenting to the user an adjustable priority indicia for adjusting preferences related to the selected goal, wherein the priority indicia adjusts the level of priority of achieving the selected goal as related to other goals;
- (b) allowing the user to make an adjustment to the priority indicia;
- (c) adjusting the level of priority of achieving the selected goal responsive to the user's adjustment of the priority indicia.

goal would be attained” (App. Br. 13). While Jones discloses “retirement age” as an adjustable parameter, and thus discloses the adjustment of the *time* by which a goal would be attained, Jones does not, as the Appellants argued, limit adjustments to time. Accordingly, the Appellants have not shown error in the Examiner’s rejection of the claims.

The Appellants also argued that “Jones does not address the ability to select preferences, amounting to more than just cost, that balance the attainment of a selected plurality of goals against each other.” App. Br. 13. However, the Appellants’ argument is not commensurate in scope with what is claimed. The claims do not exclude selecting preferences amounting to no more than cost.

#### E. Conclusion of Law

On the record before us, Appellants have failed to show that the Examiner erred in rejecting the claims as anticipated by Jones.

*The rejection of claims 28-39, 41-45, 47-49, 57-68, 70-74, 76-78, 86-97, 99-103, and 105-107 under 35 U.S.C. 103(a) over Jones.*

The Appellants rest on the arguments they raised with respect to the § 102 rejection. App. Br. 14 and Reply Br. 6. For the same reasons therefore, we find the arguments unpersuasive as to error in the rejection of the claims under § 103.



*Claims 33, 62, and 91*

The Appellants separately argued these claims as a group. App. Br. 14-15. Representative claim 33 will be our focus.

With respect to claim 33<sup>4</sup>, the Examiner found that “Jones et al. teaches a method further comprising: using the user profile information as market intelligence (See at least figures 6 and 7, column 5, lines 50-65, column 6, lines 7-13, 20-37, and 60-65, column 7, lines 5-10, column 10, lines 54-67, and column 13, lines 44-50, column 16, lines 10-25, wherein a profile is maintained for the user and this profile is used with market knowledge (historical information, current information, etc.) to simulate the portfolio of the user).” Answer 10. The Appellants argued that Jones “fail[s] to show use of a user profile as market intelligence used by a separate entity from the user.” App. Br. 15. The Appellants disagreed with the Examiner’s construction of the claim underlying the obviousness rationale, which the Appellants argued construes the claim as requiring the use of the user profile *with* market intelligence instead of *as* market intelligence. According to the Appellants, “the plain meaning of the claim is that the user profile is equated to market intelligence.” App. Br. 14.

We disagree with the Appellants’ interpretation of the Examiner’s construction of the claim. The Examiner states that Jones uses the profile “with market knowledge” (Answer 10), but it is clear from the Examiner’s rationale that the Examiner’s position is that Jones indicates that the profile data may be used *in combination with* market knowledge. This led the Examiner to the view that Jones

<sup>4</sup> 33. The method of claim 29 further comprising:  
using the user profile information as market intelligence.

suggested using profile data, like the market knowledge, “on some level as information about the market.” Answer 23. We do not see that the Examiner construed the claim as requiring the use of the user profile *with* market intelligence. The Examiner properly construed the claim as requiring using the user profile information *as* market intelligence but found that Jones, in light of the disclosure therein of its use in combination with market knowledge, suggested that use. Ironically, it is the Appellants who read a limitation into the claim. In arguing that Jones “fail[s] to show use of a user profile as market intelligence used by a separate entity from the user” (App. Br. 15), the Appellants read into the claim that the user profile possesses a characteristic such that it can be used by something other than the user. However, the claim nowhere limits the user profile’s function such that it is useful to an entity separate from the user.

#### E. Conclusion of Law

On the record before us, Appellants have failed to show that the Examiner erred in rejecting the claims over the prior art.

#### DECISION

The Examiner’s decision rejecting claims 21-39, 41-45, 47-68, 70-74, 76-97, 99-103, and 105-107 is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv) (2004).

AFFIRMED

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